AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please amend paragraph [0028] of the printed publication of the present application in the following manner:

FIG. 13 is a side perspective view of a section of banded syringes with a control feature according to a first embodiment; ~~and~~

Please amend paragraph [0029] of the printed publication of the present application in the following manner:

FIG. 14 is a diagrammatic plan view of an automated system for preparing or otherwise compounding a medication to be administered to a patient[[.]]

Please add the following paragraphs after the paragraph [0029] of the printed publication of the present application:

FIG. 15 is a side perspective view of a section of banded syringes with a control feature according to a second embodiment; and

FIG. 16 is a side perspective view of a section of banded syringes with a control feature according to a third embodiment.

Please add the following paragraphs after the paragraph [0076] of the printed publication of the present application:

The control feature 900 ensures that the banded syringes 10 is properly aligned in a system that it is being used in, such as the disclosed automated system 100 (Fig. 14), and also to ensure that the syringes have specifications, e.g., dimensions, that fall within the acceptable specifications of the system with which the banded syringes 10 are being used. The control feature 900 is formed in each prescribed interval 902 between next adjacent syringes. The control feature 900 is configured so that a detection mechanism, such as a reader or other type of similar device, can detect the presence or absence, as well as the location of the control feature 900 within the prescribed interval 902.

In one embodiment, the control feature 900 is an aperture formed in the prescribed interval 902 at a specific location thereof. For example, the control feature 900 can be in the form of an aperture having a square shape as shown in Fig. 13. The system 100 (Fig. 14) typically includes a laminar flow of air about the stations and rotary apparatus 130 to ensure that the system 100 is clean and remains in a clean state during operation. In a first embodiment, a detection mechanism 910 takes advantage of the presence of this laminar air flow by incorporating a nozzle 912 into the components providing the laminar air flow in the system 100. The nozzle discharges a laminar air flow and if the banded syringes 10 is precision fed into the system 100, proper alignment of the control feature 900 results and hence the syringe can be ascertained by having the laminar air flow directed toward the banded syringes 10 at the same height as the height that the control feature 900 is formed in the prescribed interval 902. In other words, the laminar air flow is in registration with the control feature 900 at select times when the aperture and the laminar air flow align with one another. When the control feature 900 (aperture) and the laminar air flow are not in alignment, the laminar air flow simply strikes the strip and does not pass therethrough.

In this embodiment, the detection mechanism 910 also includes a sensor 914 that is disposed on the opposite side of the banded syringes 10 as compared to the nozzle 912. The sensor 914 is configured to detect the presence of the laminar air flow when the aperture and laminar air

flow are in alignment. In this instance, the sensor 914 is of a type that detects the presence of the laminar air flow against the sensor 914 itself and in one embodiment, the sensor is a pressure sensor. When the laminar air flow and the control feature 900 are in registration, the laminar air flow is permitted to flow cleanly through the aperture formed in the banded syringes 10 and make contact with the sensor. The sensor detects the presence of the laminar air flow and signals a controller (not shown) or the like of such detection. The controller is integrated into the system 100 such that upon receiving this signal, the controller then signals other components, such as the rotary apparatus 130, of the system 100 to advance the banded syringes 10 a prescribed distance. It should be understood that the controller can respond to the pressure of the air flow through the control feature 900 or to a logical waveform resulting from the timing of air signals relative to periods without air signals (e.g., due to indexing of the banded syringes 10).

Once the banded syringes 10 is advanced the prescribed distance, another of the apertures (control feature 900) is then axially aligned with the laminar air flow so long as the correct type of banded syringes 10 for the system 100 is in place, the syringe orientation (up or down) is proper, and also the alignment of the banded syringes 10 is proper. By integrating the detection mechanism 910 with the indexing components of the system 100, the distance between the control features 900 corresponds to the distance that the banded syringes 10 is advanced upon receiving the control signal from the detection mechanism 910. Thus, the banded syringes 10 is continuously advanced because each time the detection mechanism 910 is in recognition with the control feature 900, the banded syringes 10 is advanced a distance that corresponds to the next control feature 900 being within a detection zone, thereby resulting in the detection mechanism 910 detecting the next control feature 900 and signaling the system 100 to further advance the banded syringes 10.

It will be appreciated that the system 100 can thus easily be designed so that the banded syringes 10 is continuously fed into the system 100, thereby permitting the system 100 to run continuously. The control feature 900 ensures proper alignment of the banded syringes 10 and also ensures that the proper type of banded syringes 10 is being used as the system 100 is configured to stop advancing the banded syringes 10 if the detection mechanism 910 fails to read the control feature 900. For example, if the correct banded structure 10 is being used but the banded structure 10 becomes misaligned as it is being fed, the control feature 900 will not be in alignment

with the nozzle as the banded syringes 100 are advanced. The detection mechanism 910 is preferably configured so that it will only advance the banded syringes 10 a predetermined distance without detecting the control feature 900. If the control feature 900 is not detected over this predetermined distance, the detection mechanism 910 signals the controller or the like of the system 100 to stop advancement of the banded syringes 10. Preferably, an error message is generated at the same time the banded syringes 10 is stopped. Manual inspection is then performed to locate the problem.

In another embodiment shown in Fig. 15, the control feature is in the form of an optical feature 950 that is used as part of an optical detection mechanism 920. As with the prior embodiment (Fig. 13), the optical feature 950 is formed in the prescribed region 902 of the banded syringes 10 with next adjacent optical features 950 being spaced a prescribed distance from one another.

Any conventional optical feature 950 that is suitable for use in the present application can be used. The detection mechanism 920 is a detection mechanism that optically detects the presence of the optical feature 950 when the optical feature 950 is in proper registration with an optical detector 930. For example, the optical detection mechanism 920 can include the optical detector 930 that faces the banded syringes 10 as the banded syringes are advanced. The optical detector 930 cooperates with a light source, such as a laser or LED 935 that also faces the banded structure 10 to detect the presence of the optical feature 950. Advantageously, the light source and optical detector are arranged relative to each other in accordance with Snell's Law of Reflection; however, the light source and detector can be arranged otherwise, such as normal to and facing the optical feature 950. The optical feature 950 can come in a number of different shapes and sizes.

The optical detection mechanism 920 operates essentially in the same manner as the detection mechanism 910 of FIG. 15. In other words, the banded syringes 10 are only advanced if the optical detection mechanism 920 reads the optical feature. If the banded structure 10 is advanced a prescribed distance and the optical detection mechanism 920 does not read the optical feature 950, the advancement of the banded structure 10 is stopped. Accordingly, proper registration between the optical features 950 and the detection mechanism 920 is needed for the banded structure 10 to be continuously advanced.

In yet another embodiment that is illustrated in Fig. 16, the control feature is a mark 960 that is formed within the prescribed interval 902 between spaced syringes and a detection mechanism 970 is used for detecting the mark 960. The mark 960 can be any number of types of marks, including a printed mark that is formed on the surface of banded syringes 10. As with the other embodiments, the detection mechanism 970 is used to detect the mark 960 and if a detection is not made within a prescribed time interval or during advancement of the banded structure 10 over a prescribed distance, the detection mechanism 970 signals a controller or the like to stop the advancement of the banded syringes 10.

It will also be appreciated that when the control feature is an aperture formed through the banded syringes 10 within the prescribed region, other types of detection mechanisms can be used rather than the pressure based detection mechanism discussed earlier. For example, the detection mechanism can be an ultrasonic system having an ultrasonic receiver and transducer. Ultrasonic waves are created one side of the banded syringes 10 and are emitted toward the banded syringes 10. When the control feature is in proper registration, the ultrasonic waves can pass through the aperture unimpeded and are detected on the other side of the banded syringes 10. When the detection mechanism is ultrasonically based, the system preferably includes an integrator and comparator so that ultrasonic waves that pass through the aperture can be differentiated from ultrasonic waves that reach the detector by means other than passing through the aperture (control feature).

Another type of detection mechanism that can be used with the banded syringes 10 is a thermal detection system. For example, the control feature 900 is still an aperture formed in the banded syringes 10; however, the detection mechanism is a thermal based system that includes a thermal source (e.g., heat lamp) and a thermal detector. The thermal source, such as a heat lamp, is disposed on one side of the banded syringes 10, while the thermal detector is disposed on the other side of the banded syringes 10. The thermal source and the thermal detector are positioned so that the aperture is in registration therewith at a point in time as the banded syringes 10 are advanced. The thermal detection mechanism is preferably coupled with an integrator and comparator. These two components permit the thermal detection mechanism to differentiate between heat that is detected across the aperture and heat that is detected through the banded structure 10 itself but

outside of the aperture. Because heat that passes directly through the aperture is of higher intensity than heat that passes through the first and second layers of the banded syringes 10, the integrator/comparator can differentiate between the different thermal energies and only permit advancement of the banded syringes 10 when thermal energy passing through the aperture is detected.

Preferably, an ultrasonically, or heat or optically-based detection system includes logic such that the system does not merely detect ultrasonic waves, optical waves or heat waves but also analyzes the character, e.g., amplitude, of the waves. The detection system can therefore be configured to effectively filter out waves that do not meet certain criteria. The criteria is preferably a threshold that is achieved only when waves pass directly through the aperture (control feature) and are detected by the detection mechanism on the other side of the banded syringes 10. Thus, waves that do not pass through the aperture but are otherwise detected on the other side of banded structure 10 do not register as a detection since they lack the prescribed criteria.

The control feature can comprise a segment of web material that permits passage of heat or light (of a given frequency, for example) while the remainder of the strip is treated (e.g., coated) to block heat or light of prescribed frequencies. Thus, it can be appreciated that the control feature can take on a variety of forms to ensure proper handling of the bandolier type syringes.